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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,380	01/16/2001	Bernard Belleau	IAF-1/2 C11	2480
	7590 07/10/2002	· +		1
MILLEN, WHITE, ZELANO & BRANIGAN, PC			EXAMINER 1	
2200 CLARE SUITE 1400			MCKENZIE, THOMAS C	
ARLINGTON	, VA 22201		ART UNIT	PAPER NUMBER
		( ) .	1624	1
			DATE MAILED: 07/10/2002	10

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)			
	09/760,380	BELLEAU ET AL.			
Office Action Summary	Examiner	Art Unit			
	Thomas McKenzie Ph.D.	1624			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status  1)   Responsive to communication(s) filed on 09	May 2002				
_	nis action is non-final.				
, <b>-</b>		recognition as to the morits is			
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>					
4)⊠ Claim(s) <u>35-75</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6) Claim(s) is/are rejected.					
7) Claim(s) is/are objected to.					
8)⊠ Claim(s) <u>35-75</u> are subject to restriction and/o	r election requirement.				
Application Papers					
9)☐ The specification is objected to by the Examiner.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.					
If approved, corrected drawings are required in reply to this Office action.					
12) The oath or declaration is objected to by the Examiner.					
Priority under 35 U.S.C. §§ 119 and 120					
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).					
a) ☐ All b) ☐ Some * c) ☐ None of:					
<ol> <li>Certified copies of the priority documents have been received.</li> </ol>					
2. Certified copies of the priority documents have been received in Application No					
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).					
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.					
Attachment(s)					
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal	y (PTO-413) Paper No(s) Patent Application (PTO-152)			

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## **DETAILED ACTION**

1. This action is in response to amendments filed on 5/9/02. There are forty-one claims pending. Claim 73 is a compound claim. Claims 35-72, 74, and 75 are synthesis claims. The application concerns some pyrimidinyl- and purinyl-1,3-oxathiolane compounds and synthesis thereof.

## Election/Restrictions

- 2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims none, drawn to 1,2,4-triazine compounds, classified in class 544, subclass 182.
  - II. Claims none, drawn to imidazolo[4,5-d]triazine compounds, classified in class 544, subclass 184.
  - III. Claims none, drawn to 1,3,5-triazine compounds, classified in class 544, subclass 220, among others.
  - IV. Claims none, drawn to imidazolo[4,5-d]pyridazine compounds, classified in class 544, subclass 236.
  - V. Claims none, drawn to triazolo[4,5-d]pyridine compounds, classified in class 544, subclass 254.
  - VI. Claims none, drawn to pyrazolo[3,4-d]pyrimidine compounds, classified in class 544, subclass 262.
  - VII. Claims 51-54, drawn to purine compounds, classified in class 544, subclass 264, among others.
  - VIII. Claims none, drawn to pyrrolo[2,3-d]pyrimidine compounds, classified in class 544, subclass 280.
  - IX. Claims none, drawn to pyrimidine compounds, classified in class 544, subclass 314, among others.
  - X. Claims none, drawn to imidazolo[4,5-c]pyridine compounds, classified in class 546, subclass 118.
  - XI. Claims none, drawn to pyridin-2-one compounds, classified in class 546, subclass 280.4.
  - XII. Claims none, drawn to 1,2,4-triazole compounds, classified in class 548, subclass 268.6.
  - XIII. Claims none, drawn to imidazole compounds, classified in class 548, subclass 311.1.

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XIV. Claims none, drawn to pyrrole compounds, classified in class 548, subclass 527.

XV. Claims none, drawn to oxathiolane compounds, classified in class 549, subclass 30.

Claims 35, 37, 39, 40, and 41 link Groups I, II, III, IV, V, VI, X, XI, XII, XIII, and XIV.

Claims 36, 38, 42, 43, and 44 link Groups I, III, VI, VIII, and XII.

Claims 45, 47, and 48 link Groups I, II, III, IV, V, VI, X, and XV.

Claims 46, 49, and 50 link Groups I, III, VI, VIII, and XIII.

Claims 55 and 57-59 link Groups I, II, III, IV, V, VI, X, XII, XIII, and XV.

Claims 56 and 60-62 link Groups I, III, VI, VIII, and XII.

Claims 63, 65, 67, 68, and 69 link Groups I, II, III, IV, V, VI, X, XII, XIII, and XIV.

Claims 64, 66, and 70-72 link Groups I, III, VI, IX, and XIII.

Claim 73 links Groups VII, IX, and XV.

Claim 74 links Groups I, II, III, IV, V, VII, VII, VIII, IX, X, XI, XIII, and XIV.

3. The inventions are distinct, each from the other because of the following reasons: the heterocyclic core of the structure given of formula XVII is the ring  $R_2$ . Formula XVII is the product of the process of claim 35 and the basis for classification. This heterocyclic ring is a mandatory feature and is either monocyclic or bicyclic with from one to five nitrogen atoms. These multiple claimed rings are chemically non-equivalent and are not art-recognized as sharing the same chemical properties. Each heterocycle will require separate determinations for enablement. Inventions I-XV have acquired a separate status in

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the art as shown by their different classification, thus the patent search required for Group I is not co-extensive with that required for Groups II-XV. The basic names of these heterocycles differ, thus the literature search for these various species will be divergent. Because these inventions are distinct for the reasons given above, restriction for examination purposes as indicated is proper.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## **Conclusion**

5. Please direct any inquiry concerning this communication or earlier communications from the Examiner to Thomas C McKenzie, Ph. D. whose telephone number is (703) 308-9806. The FAX number for before final amendments is (703) 872-9306. The Examiner is available from 8:30 to 5:30, Monday through Friday. If attempts to reach the Examiner by telephone are unsuccessful, you can reach the Examiner's supervisor, Mukund Shah at (703) 308-4716. Please direct general inquiries or any inquiry relating to the status of this application to the receptionist whose telephone number is (703) 308-1235.

### Mark Berch Primary Patent Examiner Art Unit 1624

TCMcK July 8, 2002

